

That which is claimed is:

1. A method for implementing router interface backup with Virtual Router Redundancy Protocol (VRRP), comprising:

(1) connecting multiple interfaces of a router or routers to the same LAN and adding the interfaces to the same multicast group;

(2) configuring the same virtual router number and virtual IP address to said interfaces to make said interfaces join the same virtual router;

(3) selecting the main interface and backup interfaces according to their respective priorities among said interfaces; and

(4) sending VRRP multicast packets from the main interface to all backup interfaces periodically; if the priority involved in the just received VRRP multicast packet is zero or the backup interfaces have not received any VRRP multicast packet within a predetermined period, one backup interface becoming the main interface and replacing the original main interface.

2. The method of Claim1, wherein said step of selecting the main interface and backup interfaces comprises the steps of:

(1) an interface directly becoming a backup interface when initiated; and becoming the main interface if it has not received any VRRP multicast packet within a period;

(2) if the virtual IP address of the interface is identical with its real IP address, the interface directly becoming the main interface after initiated, and being configured with the maximum priority automatically; and

(3) if multiple interfaces become main interfaces simultaneously, each interface comparing the priority involved in the received VRRP packet with its own priority; if the priority involved in the received VRRP packet is higher than its own priority, the interface becoming a backup interface.

3. The method of Claim1, further comprising: judging whether the priority involved in the VRRP packet received by a backup interface is higher than the priority configured to the backup interface, if so, keeping the state of the backup interface unchanged; otherwise making the backup interface become the main interface.